

**DETAILED ACTION**

***Allowable Subject Matter***

1. Claims 23-28, 30, 31, and 33-57 are allowed.
2. The following is an examiner's statement of reasons for allowance. The prior art does not disclose or suggest "a thickness of the solid layer is set such that energy of the boundary acoustic wave is not present on an outer surface of the single crystal substrate and is not present on an outer surface of the solid layer, the outer surface of the single crystal substrate and the outer surface of the solid layer are defined by respective surfaces of the single crystal substrate and the solid layer opposite to abutting surfaces of the single crystal substrate and the solid layer; a thickness of the electrodes is set so that the acoustic velocity of an SH type boundary acoustic wave is lower than the acoustic velocity of a slow transverse wave propagating through the solid layer and the acoustic velocity of a slow transverse wave propagating through the piezoelectric single crystal substrate" in combination with the remaining claim elements of claim 31. The prior art does not disclose or suggest "a thickness of the solid layer is set such that energy of the boundary acoustic wave is not present on an outer surface if the single crystal substrate and is not present on an outer surface of the solid layer, the outer surface of the single crystal substrate and the outer surface of the solid layer are defined by respective surfaces of the single crystal substrate and the solid layer opposite to abutting surfaces of the single crystal substrate and the solid layer; a thickness of the electrodes is set so that the acoustic velocity of an SH type boundary acoustic wave is lower than the acoustic velocity of a slow transverse wave propagating

through the solid layer and the acoustic velocity of a slow transverse wave propagating through the piezoelectric single crystal substrate in combination with the remaining claim elements of claim 34.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

3. Applicant's arguments, see amendments/arguments, filed 12 November 2009, with respect to claims 23-28, 30, 31, and 33-57 have been fully considered and are persuasive. The 35 USC 103 and 112 rejections of claims 23-28, 30, 31, and 33-57 have been withdrawn.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek J. Rosenau whose telephone number is (571)272-8932. The examiner can normally be reached on Monday thru Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Derek J Rosenau/  
Examiner, Art Unit 2837

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837